

AMENDMENTS TO THE DRAWINGS:

Figures 6, 8 and 9 are amended to add text legends to the unlabeled boxes. No new matter has been entered by way of this amendment.

REMARKS

The application has been amended and is believed to be in condition for allowance.

The subject matter of claims which have not been substantively rejected has been incorporated into the independent claims.

A substitute specification and a marked-up copy thereof are attached. The undersigned attorney verifies that no new matter is entered by way of the substitute specification.

Figures 6, 8 and 9 are amended to add text legends to the unlabeled boxes. No new matter has been amended entered by way of this amendment.

Claim 1 has been amended as follows:

"~~- signal processing demodulation~~ of the current signal ($i(n)$) ~~in such a way that~~ and extraction of only the low-frequency amplitude variations ~~remain~~ in the form of a flicker component for the current signal ($i(n)$);

~~- signal processing demodulation~~ of the voltage signal ($u(n)$) ~~in such a way that~~ and extraction of only the low-frequency amplitude variations ~~remain~~ in the form of a flicker component for the voltage signal ($u(n)$)".

This amendment is supported at least by page 16, lines 23-26 of the published WO 2004/057351 PCT application. See also original claim 3. See the corresponding take on National Stage application page 19:

The formula [3] shows that, after multiplication and integration, the individual low-frequency tones in current and voltage create the flicker power. In order to determine this power, the amplitude and phase of the low-frequency signals in voltage and current must be known and the low-frequency signals must be able to be extracted from the signal package [1] and [2]. This can be carried out in several different ways that lead to the same result. Examples of different methods are described below as different embodiments of the invention.

Claim 1 has also been amended to as follows:

"~~- creation of creating~~ a product by multiplication of the flicker component for the current signal and the flicker component for the voltage signal;

~~- processing of the product in such a way that creating one of an average value of the instantaneous power signal ($\Pi(n)$) and a summation of the partial powers P_k wherein a flicker power (Π) is obtained with a sign value that indicates in which direction the flickering source is located in relation to the measurement point".~~

Support can be found at least on page 6, lines 9-11 of the published WO 2004/057351 PCT application. See also original claim 4.

Claim 1 has been amended to add the following "tangible result" step:

displaying the sign value as an indication of which direction the flickering source is located in relation to the measurement point. See that Figure 8 discloses a display which

can both numerically and graphically show the flicker power with the sign value.

The other independent claims are also amended to address the outstanding formal issues.

Claim 3 has been amended as follows:

"- filtering, by one of a band pass filer and a multiplication of weight distribution factors, the first demodulated signal to eliminate off of the signals that originate from the network frequency (f_c) in the first demodulated signal in such a way so that only the low-frequency variations remain in the form of the flicker component for current, and [;]

"- the signal processing of said demodulation of the voltage signal ($u(n)$) step comprises the steps:

"- creation of a second demodulated signal by demodulation of the voltage signal; and

"- filtering, by one of a band pass filer and a multiplication of weight distribution factors, the second demodulated signal to eliminate off of the signals that originate from the network frequency in the second demodulated signal in such a way so that only the low-frequency variations remain in the form of the flicker component for voltage".

For support, see page 6, lines 19-21 and page 7, line 11 through page 8, line 5 of the published WO 2004/057351 PCT application.

The claims have been amended to conform with U.S. practice requirements and preferences.

Withdrawal of all the formal objections/rejections is solicited.

Claims 1, 2, 7, 10, and 12 were rejected as anticipated by HATTORI EP 1072897.

The remaining claims were not substantively rejected.

The subject matter of claims which have not been substantively rejected has been incorporated into the independent claims.

Additionally, HATTORI does not measure the recited low frequency amplitude variations but rather measures high frequency signals in a network or conductor due to induction.

More specifically, HATTORI does not disclose either of recording of an amplitude-modulated current signal ($i(n)$) comprising signals that originate from low-frequency amplitude variations in the current signal ($i(n)$) and low-frequency amplitude variations in the voltage signal ($u(n)$).

Nor does HATTORI teach creating one of an average value of the instantaneous power signal ($\Pi(n)$) and a summation of the partial powers P_k wherein a flicker power (Π) is obtained with a sign value that indicates in which direction the flickering source is located in relation to the measurement point, and displaying an indication of which direction the flickering source is located in relation to the measurement point.

The Official Action offers HATTORI as disclosing direction of the power. This is not what is being recited. What HATTORI discloses is a direction of a noise source and not direction of a flickering source with respect to a measurement point.

Additionally, HATTORI is calculating the total output by computing the product of the total current and the total voltage in the conductor while the claims require demodulating the current/voltage signals and extracting, from the demodulated signals, only the low-frequency amplitude variations in the form of a flicker component for the current/voltage. There is no suggestion of this within HATTORI.

None of the other cited references make these teachings.

In view of the above, the claims are all believed patentable. Reconsideration and allowance of all the claims are respectfully requested.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON

Roland E. Long

Roland E. Long, Jr., Reg. No. 41,949
745 South 23rd Street
Arlington, VA 22202
Telephone (703) 521-2297
Telefax (703) 685-0573
(703) 979-4709

REL/lk

APPENDIX:

The Appendix includes the following items:

- Replacement Sheets for Figures 6, 8 and 9 of the drawings
- a Substitute Specification and a marked-up copy of the originally-filed specification